

C. Kaitman

CRF Errors Corrected by the STIC Systems Branch

1600 #8
8/21/2001

Serial Number: 09/457,864

ENTERED

CRF Processing Date: 8/21/2001
Edited by: [signature]
Verified by: [signature] (STIC stat)

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/lastname at end of file;
☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/457,864

DATE: 08/21/2001

TIME: 15:16:08

Input Set : N:\jumbos\457864.txt

Output Set: N:\CRF3\08212001\I457864.raw

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4 <110> APPLICANT: Pioneer HiBred International
5      Bulla, Lee A.
7 <120> TITLE OF INVENTION: RECEPTOR FOR A BACILLUS THURINGIENSIS
8      TOXIN
10 <130> FILE REFERENCE: 27112-20037.13
12 <140> CURRENT APPLICATION NUMBER: 09/457,864
13 <141> CURRENT FILING DATE: 1999-12-10
15 <150> PRIOR APPLICATION NUMBER: US 08/326,117
16 <151> PRIOR FILING DATE: 1994-10-19
18 <160> NUMBER OF SEQ ID NOS: 15
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 5582
24 <212> TYPE: DNA
25 <213> ORGANISM: M. sexta
27 <220> FEATURE:
28 <221> NAME/KEY: CDS
29 <222> LOCATION: (197)...(5348)
31 <400> SEQUENCE: 1
32 gaccaatcgg agtgtggtga atttttggaa aatattttgt gcggttcctt tagttgtgta      60
33 atatagtact ttagttacaa atttggaata atttggcagc aaaaccatct gcagcaacaa      120
34 aatcatctgc agctgcgaaa tcatctgcag cagcaaaagc atcttcagga gcgagaaaag      180
35 ccccaaataa tgtgag atg gca gtt gac gtc cga atc gct gcc ttc ctg ctg      232
36      Met Ala Val Asp Val Arg Ile Ala Ala Phe Leu Leu
37      1          5          10
39 gtg ttt ata gcg cct gca gtt tta gct caa gag aga tgt ggg tat atg      280
40 Val Phe Ile Ala Pro Ala Val Leu Ala Gln Glu Arg Cys Gly Tyr Met
41      15          20          25
43 acc gcc atc cca agg cta cca cga ccg gat aat ttg cca gta cta aat      328
44 Thr Ala Ile Pro Arg Leu Pro Arg Pro Asp Asn Leu Pro Val Leu Asn
45      30          35          40
47 ttt gaa ggc cag aca tgg agt cag agg ccc ctg ctc ccc gcc ccg gag      376
48 Phe Glu Gly Gln Thr Trp Ser Gln Arg Pro Leu Leu Pro Ala Pro Glu
49 45          50          55          60
51 cgg gat gac ctg tgc atg gac gcc tac cac gtg ata aca gcc aac ctc      424
52 Arg Asp Asp Leu Cys Met Asp Ala Tyr His Val Ile Thr Ala Asn Leu
53      65          70          75
55 ggc acg cag gtc atc tac atg gat gaa gag ata gaa gac gaa atc acc      472
56 Gly Thr Gln Val Ile Tyr Met Asp Glu Glu Ile Glu Asp Glu Ile Thr
57      80          85          90
59 atc gcc ata ctt aat tat aac gga cca tca act ccg ttc att gaa ctg      520
60 Ile Ala Ile Leu Asn Tyr Asn Gly Pro Ser Thr Pro Phe Ile Glu Leu
61      95          100          105
63 cca ttt tta tcc ggt tcg tac aat ctg ctg atg ccg gtc atc agg aga      568
64 Pro Phe Leu Ser Gly Ser Tyr Asn Leu Leu Met Pro Val Ile Arg Arg
65      110          115          120
67 gtt gac aac ggg gag tgg cat ctc atc atc acg caa aga cag cat tac      616

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Input Set : N:\jumbos\457864.txt

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68	Val	Asp	Asn	Gly	Glu	Trp	His	Leu	Ile	Ile	Thr	Gln	Arg	Gln	His	Tyr	
69	125					130					135					140	
71	gag	ttg	ccc	ggc	atg	cag	cag	tac	atg	ttc	aat	gtg	cgc	gtg	gac	ggc	664
72	Glu	Leu	Pro	Gly	Met	Gln	Gln	Tyr	Met	Phe	Asn	Val	Arg	Val	Asp	Gly	
73				145						150					155		
75	cag	tcg	ctg	gtg	gca	ggc	gtg	tct	ctc	gct	atc	gtc	aac	ata	gat	gac	712
76	Gln	Ser	Leu	Val	Ala	Gly	Val	Ser	Leu	Ala	Ile	Val	Asn	Ile	Asp	Asp	
77				160					165					170			
79	aac	gcg	ccc	atc	ata	caa	aac	ttc	gag	cct	tgc	cgg	gtt	cct	gaa	ctg	760
80	Asn	Ala	Pro	Ile	Ile	Gln	Asn	Phe	Glu	Pro	Cys	Arg	Val	Pro	Glu	Leu	
81			175					180					185				
83	ggc	gag	cca	ggg	ttg	aca	gaa	tgc	aca	tac	caa	gta	tcg	gac	gcg	gac	808
84	Gly	Glu	Pro	Gly	Leu	Thr	Glu	Cys	Thr	Tyr	Gln	Val	Ser	Asp	Ala	Asp	
85		190					195				200						
87	gga	cgg	atc	agc	aca	gag	ttc	atg	acg	ttc	agg	atc	gac	agc	gtt	cgt	856
88	Gly	Arg	Ile	Ser	Thr	Glu	Phe	Met	Thr	Phe	Arg	Ile	Asp	Ser	Val	Arg	
89	205					210					215					220	
91	ggc	gac	gag	gag	acc	ttc	tac	atc	gaa	cgg	acg	aat	atc	ccc	aac	caa	904
92	Gly	Asp	Glu	Glu	Thr	Phe	Tyr	Ile	Glu	Arg	Thr	Asn	Ile	Pro	Asn	Gln	
93				225						230				235			
95	tgg	atg	tgg	cta	aat	atg	acc	ata	ggc	gtt	aat	acc	tcg	ctc	aac	ttc	952
96	Trp	Met	Trp	Leu	Asn	Met	Thr	Ile	Gly	Val	Asn	Thr	Ser	Leu	Asn	Phe	
97			240						245					250			
99	gtc	acc	agt	ccg	ctg	cat	ata	ttc	agc	gtg	aca	gcc	ctg	gac	tcg	ctc	1000
100	Val	Thr	Ser	Pro	Leu	His	Ile	Phe	Ser	Val	Thr	Ala	Leu	Asp	Ser	Leu	
101			255					260					265				
103	ccg	aac	acc	cac	acg	gtg	act	atg	atg	gtg	caa	gtg	gcg	aat	gtg	aac	1048
104	Pro	Asn	Thr	His	Thr	Val	Thr	Met	Met	Val	Gln	Val	Ala	Asn	Val	Asn	
105		270					275					280					
107	agc	cgt	ccg	ccg	cgc	tgg	ctg	gag	atc	ttc	gct	gtc	caa	cag	ttt	gaa	1096
108	Ser	Arg	Pro	Pro	Arg	Trp	Leu	Glu	Ile	Phe	Ala	Val	Gln	Gln	Phe	Glu	
109	285					290					295					300	
111	gag	aaa	tct	tac	caa	aac	ttc	aca	gtg	agg	gcg	atc	gac	gga	gac	act	1144
112	Glu	Lys	Ser	Tyr	Gln	Asn	Phe	Thr	Val	Arg	Ala	Ile	Asp	Gly	Asp	Thr	
113				305						310				315			
115	gag	atc	aat	atg	cct	atc	aac	tac	agg	ctg	atc	aca	aat	gag	gaa	gac	1192
116	Glu	Ile	Asn	Met	Pro	Ile	Asn	Tyr	Arg	Leu	Ile	Thr	Asn	Glu	Glu	Asp	
117				320					325					330			
119	aca	ttc	ttc	agc	att	gag	gcc	ctg	cct	ggt	gga	aaa	agc	ggg	gct	gta	1240
120	Thr	Phe	Phe	Ser	Ile	Glu	Ala	Leu	Pro	Gly	Gly	Lys	Ser	Gly	Ala	Val	
121			335					340						345			
123	ttc	ctc	gtg	tcg	cca	att	gac	cgc	gac	aca	ctg	caa	cga	gag	gtg	ttt	1288
124	Phe	Leu	Val	Ser	Pro	Ile	Asp	Arg	Asp	Thr	Leu	Gln	Arg	Glu	Val	Phe	
125		350					355						360				
127	cca	ctt	acg	atc	gtc	gct	tac	aaa	tat	gat	gag	gag	gcc	ttc	tcc	aca	1336
128	Pro	Leu	Thr	Ile	Val	Ala	Tyr	Lys	Tyr	Asp	Glu	Glu	Ala	Phe	Ser	Thr	
129	365					370					375					380	
131	tca	aca	aac	gtg	gtc	atc	att	gtg	aca	gac	atc	aac	gac	caa	aga	cct	1384
132	Ser	Thr	Asn	Val	Val	Ile	Ile	Val	Thr	Asp	Ile	Asn	Asp	Gln	Arg	Pro	

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133		385		390		395		
135	gaa cct ata cac aag gaa tat cga ctg gca atc atg gag gag acg ccc							1432
136	Glu Pro Ile His Lys Glu Tyr Arg Leu Ala Ile Met Glu Glu Thr Pro							
137		400		405		410		
139	ctg acc ctc aac ttc gat aaa gaa ttc gga ttt cat gat aag gat tta							1480
140	Leu Thr Leu Asn Phe Asp Lys Glu Phe Gly Phe His Asp Lys Asp Leu							
141		415		420		425		
143	ggt caa aac gct cag tac acg gtg cgt cta gag agc gtg gac cct cca							1528
144	Gly Gln Asn Ala Gln Tyr Thr Val Arg Leu Glu Ser Val Asp Pro Pro							
145		430		435		440		
147	ggc gct gct gag gca ttc tac ata gcg cct gaa gtc ggc tac cag cga							1576
148	Gly Ala Ala Glu Ala Phe Tyr Ile Ala Pro Glu Val Gly Tyr Gln Arg							
149	445		450		455		460	
151	cag acc ttc atc atg ggc acc ctc aat cac tcc atg ctg gat tac gaa							1624
152	Gln Thr Phe Ile Met Gly Thr Leu Asn His Ser Met Leu Asp Tyr Glu							
153		465		470		475		
155	gtg cca gag ttt cag agt att acg att cgg gtg gta gcg acc gac aac							1672
156	Val Pro Glu Phe Gln Ser Ile Thr Ile Arg Val Val Ala Thr Asp Asn							
157		480		485		490		
159	aac gac acg agg cac gtg ggc gtc gcg ttg gtt cac att gac ctc atc							1720
160	Asn Asp Thr Arg His Val Gly Val Ala Leu Val His Ile Asp Leu Ile							
161		495		500		505		
163	aat tgg aac gat gag cag ccg atc ttc gaa cac gcc gtg cag acc gtc							1768
164	Asn Trp Asn Asp Glu Gln Pro Ile Phe Glu His Ala Val Gln Thr Val							
165		510		515		520		
167	acc ttc gac gag act gaa ggc gag ggg ttc ttc gtc gcc aag gcg gtt							1816
168	Thr Phe Asp Glu Thr Glu Gly Glu Gly Phe Val Ala Lys Ala Val							
169	525		530		535		540	
171	gca cac gac aga gac atc ggg gat gtc gtc gag cat act tta ttg ggt							1864
172	Ala His Asp Arg Asp Ile Gly Asp Val Val Glu His Thr Leu Leu Gly							
173		545		550		555		
175	aac gct gtt aac ttc ctg acc atc gac aaa ctc acc ggc gac atc cgc							1912
176	Asn Ala Val Asn Phe Leu Thr Ile Asp Lys Leu Thr Gly Asp Ile Arg							
177		560		565		570		
179	gtc tca gct aac gac tcc ttc aac tac cat cga gaa agt gaa tta ttt							1960
180	Val Ser Ala Asn Asp Ser Phe Asn Tyr His Arg Glu Ser Glu Leu Phe							
181		575		580		585		
183	gtg cag gtg cga gct aca gac acg ctg ggc gaa ccc ttc cac acg gcg							2008
184	Val Gln Val Arg Ala Thr Asp Thr Leu Gly Glu Pro Phe His Thr Ala							
185		590		595		600		
187	acg tca cag ctg gtc ata cga cta aat gac atc aac aac acg cca ccc							2056
188	Thr Ser Gln Leu Val Ile Arg Leu Asn Asp Ile Asn Asn Thr Pro Pro							
189	605		610		615		620	
191	acc tta cgg ctg cct cga ggc agt ccc caa gtg gag gag aac gtg cct							2104
192	Thr Leu Arg Leu Pro Arg Gly Ser Pro Gln Val Glu Glu Asn Val Pro							
193		625		630		635		
195	gat ggc cac gtc atc acc cag gag tta cgc gcc acc gac ccc gac acc							2152
196	Asp Gly His Val Ile Thr Gln Glu Leu Arg Ala Thr Asp Pro Asp Thr							
197		640		645		650		

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199	acg gcc gat ctg cgc ttc gag ata aac tgg gac acc tct ttc gcc acc	2200
200	Thr Ala Asp Leu Arg Phe Glu Ile Asn Trp Asp Thr Ser Phe Ala Thr	
201	655 660 665	
203	aag caa ggc cgc cag gct aac ccc gac gag ttt agg aat tgc gtg gaa	2248
204	Lys Gln Gly Arg Gln Ala Asn Pro Asp Glu Phe Arg Asn Cys Val Glu	
205	670 675 680	
207	atc gag acc atc ttc ccc gag att aac aac cgg gga ctg gct atc ggc	2296
208	Ile Glu Thr Ile Phe Pro Glu Ile Asn Asn Arg Gly Leu Ala Ile Gly	
209	685 690 695 700	
211	cgc gtt gta gcg cgc gaa atc aga cac aac gtg acc ata gac tac gag	2344
212	Arg Val Val Ala Arg Glu Ile Arg His Asn Val Thr Ile Asp Tyr Glu	
213	705 710 715	
215	gag ttt gag gtc ctc tcc ctc aca gtg agg gtg cgt gac ctt aac acc	2392
216	Glu Phe Glu Val Leu Ser Leu Thr Val Arg Val Arg Asp Leu Asn Thr	
217	720 725 730	
219	gtc tac gga gac gac tac gac gaa tcg atg ctc aca ata act ata atc	2440
220	Val Tyr Gly Asp Asp Tyr Asp Glu Ser Met Leu Thr Ile Thr Ile Ile	
221	735 740 745	
223	gat atg aac gac aac gcg ccg gtg tgg gtg gag ggg act ctg gag cag	2488
224	Asp Met Asn Asp Asn Ala Pro Val Trp Val Glu Gly Thr Leu Glu Gln	
225	750 755 760	
227	aac ttc cga gtc cgc gag atg tcg gcg ggc ggg ctc gtg gtg ggc tcc	2536
228	Asn Phe Arg Val Arg Glu Met Ser Ala Gly Gly Leu Val Val Gly Ser	
229	765 770 775 780	
231	gtg cgc gcg gac gac atc gac gga ccg ctc tac aac caa gtg cga tac	2584
232	Val Arg Ala Asp Asp Ile Asp Gly Pro Leu Tyr Asn Gln Val Arg Tyr	
233	785 790 795	
235	acc att ttc cct cgt gaa gac aca gat aag gac ctg ata atg atc gac	2632
236	Thr Ile Phe Pro Arg Glu Asp Thr Asp Lys Asp Leu Ile Met Ile Asp	
237	800 805 810	
239	ttc ctc acg ggt caa att tcc gtg aac aca agc ggc gcc atc gac gcg	2680
240	Phe Leu Thr Gly Gln Ile Ser Val Asn Thr Ser Gly Ala Ile Asp Ala	
241	815 820 825	
243	gat act cct cca cgc ttc cac ctc tac tat aca gtg gtc gct agt gac	2728
244	Asp Thr Pro Pro Arg Phe His Leu Tyr Tyr Thr Val Val Ala Ser Asp	
245	830 835 840	
247	cga tgc tcg aca gaa gat cct gca gat tgc ccc cct gac ccg act tat	2776
248	Arg Cys Ser Thr Glu Asp Pro Ala Asp Cys Pro Pro Asp Pro Thr Tyr	
249	845 850 855 860	
251	tgg gaa acc gaa gga aat atc aca atc cac atc acc gac acg aac aac	2824
252	Trp Glu Thr Glu Gly Asn Ile Thr Ile His Ile Thr Asp Thr Asn Asn	
253	865 870 875	
255	aag gtc ccg cag gcg gaa acg act aag ttc gat acc gtc gtg tat att	2872
256	Lys Val Pro Gln Ala Glu Thr Thr Lys Phe Asp Thr Val Val Tyr Ile	
257	880 885 890	
259	tac gag aac gca acc cac tta gac gag gtg gtc act ctg ata gcc agt	2920
260	Tyr Glu Asn Ala Thr His Leu Asp Glu Val Val Thr Leu Ile Ala Ser	
261	895 900 905	
263	gat ctt gac aga gac gaa ata tac cac acg gtg agc tac gtc atc aat	2968

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264	Asp	Leu	Asp	Arg	Asp	Glu	Ile	Tyr	His	Thr	Val	Ser	Tyr	Val	Ile	Asn	
265		910					915					920					
267	tat	gca	gtg	aac	cct	cga	ctg	atg	aac	ttc	ttc	tcc	gtg	aac	cga	gag	3016
268	Tyr	Ala	Val	Asn	Pro	Arg	Leu	Met	Asn	Phe	Phe	Ser	Val	Asn	Arg	Glu	
269	925					930					935					940	
271	acc	ggc	ctg	gtg	tac	gtg	gac	tat	gag	acc	cag	ggg	agt	ggc	gag	gtg	3064
272	Thr	Gly	Leu	Val	Tyr	Val	Asp	Tyr	Glu	Thr	Gln	Gly	Ser	Gly	Glu	Val	
273					945					950					955		
275	ctg	gac	cgt	gat	ggg	gat	gaa	cca	acg	cac	cgt	atc	ttc	ttc	aac	ctc	3112
276	Leu	Asp	Arg	Asp	Gly	Asp	Glu	Pro	Thr	His	Arg	Ile	Phe	Phe	Asn	Leu	
277					960					965					970		
279	atc	gac	aac	ttc	atg	ggg	gaa	gga	gaa	ggg	aac	aga	aat	cag	aac	gac	3160
280	Ile	Asp	Asn	Phe	Met	Gly	Glu	Gly	Glu	Gly	Asn	Arg	Asn	Gln	Asn	Asp	
281					975					980					985		
283	aca	gaa	gtt	ctc	gtt	atc	ttg	ttg	gat	gtg	aat	gac	aat	gct	cct	gaa	3208
284	Thr	Glu	Val	Leu	Val	Ile	Leu	Leu	Asp	Val	Asn	Asp	Asn	Ala	Pro	Glu	
285		990					995					1000					
287	ttg	cca	ccg	ccg	agc	gaa	ctc	tct	tgg	act	ata	tct	gag	aac	ctt	aag	3256
288	Leu	Pro	Pro	Pro	Ser	Glu	Leu	Ser	Trp	Thr	Ile	Ser	Glu	Asn	Leu	Lys	
289	1005					1010					1015				1020		
291	cag	ggc	gtc	cgt	ctt	gaa	cca	cat	atc	ttc	gcc	ccg	gac	cgc	gac	gag	3304
292	Gln	Gly	Val	Arg	Leu	Glu	Pro	His	Ile	Phe	Ala	Pro	Asp	Arg	Asp	Glu	
293					1025					1030					1035		
295	ccc	gac	aca	gac	aac	tcc	agg	gtc	ggc	tac	gag	atc	ctg	aac	ctc	agc	3352
296	Pro	Asp	Thr	Asp	Asn	Ser	Arg	Val	Gly	Tyr	Glu	Ile	Leu	Asn	Leu	Ser	
297					1040					1045					1050		
299	acg	gag	cgg	gac	atc	gaa	gtg	ccg	gag	ctg	ttt	gtg	atg	ata	cag	atc	3400
300	Thr	Glu	Arg	Asp	Ile	Glu	Val	Pro	Glu	Leu	Phe	Val	Met	Ile	Gln	Ile	
301		1055					1060					1065					
303	gcg	aac	gtc	acg	gga	gag	ctg	gag	acc	gcc	atg	gac	ctc	aag	gga	tat	3448
304	Ala	Asn	Val	Thr	Gly	Glu	Leu	Glu	Thr	Ala	Met	Asp	Leu	Lys	Gly	Tyr	
305		1070					1075					1080					
307	tgg	ggg	acg	tac	gct	ata	cat	ata	cgg	gca	ttc	gac	cac	ggc	att	ccg	3496
308	Trp	Gly	Thr	Tyr	Ala	Ile	His	Ile	Arg	Ala	Phe	Asp	His	Gly	Ile	Pro	
309	1085					1090					1095				1100		
311	caa	atg	tcc	atg	aac	gag	aca	tat	gag	ctg	atc	atc	cat	ccg	ttc	aac	3544
312	Gln	Met	Ser	Met	Asn	Glu	Thr	Tyr	Glu	Leu	Ile	Ile	His	Pro	Phe	Asn	
313					1105						1110				1115		
315	tac	tac	gcg	cct	gag	ttc	gtc	ttc	ccg	acc	aac	gat	gcc	gtc	ata	cga	3592
316	Tyr	Tyr	Ala	Pro	Glu	Phe	Val	Phe	Pro	Thr	Asn	Asp	Ala	Val	Ile	Arg	
317					1120					1125					1130		
319	ctt	gcg	agg	gaa	cga	gct	gta	atc	aat	gga	gtt	cta	gcg	aca	gtg	aac	3640
320	Leu	Ala	Arg	Glu	Arg	Ala	Val	Ile	Asn	Gly	Val	Leu	Ala	Thr	Val	Asn	
321					1135					1140					1145		
323	gga	gag	ttc	ttg	gag	cgg	ata	tcg	gcg	act	gat	ccg	gac	gga	ctc	cac	3688
324	Gly	Glu	Phe	Leu	Glu	Arg	Ile	Ser	Ala	Thr	Asp	Pro	Asp	Gly	Leu	His	
325		1150					1155					1160					
327	gcg	ggc	gtc	gtc	acc	ttc	caa	gtg	gta	ggc	gat	gag	gaa	tca	caa	cgg	3736
328	Ala	Gly	Val	Val	Thr	Phe	Gln	Val	Val	Gly	Asp	Glu	Glu	Ser	Gln	Arg	

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.



VERIFICATION SUMMARY

PATENT APPLICATION: US/09/457,864

DATE: 08/21/2001

TIME: 15:16:09

Input Set : N:\jumbos\457864.txt

Output Set: N:\CRF3\08212001\I457864.raw

L:717 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:731 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:745 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:855 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:883 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:897 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15